Quick Installation Guide

K7VM2

English
简体中文
Deutsch
Français
Italiano
Espanol
Português
한국어

ASRock

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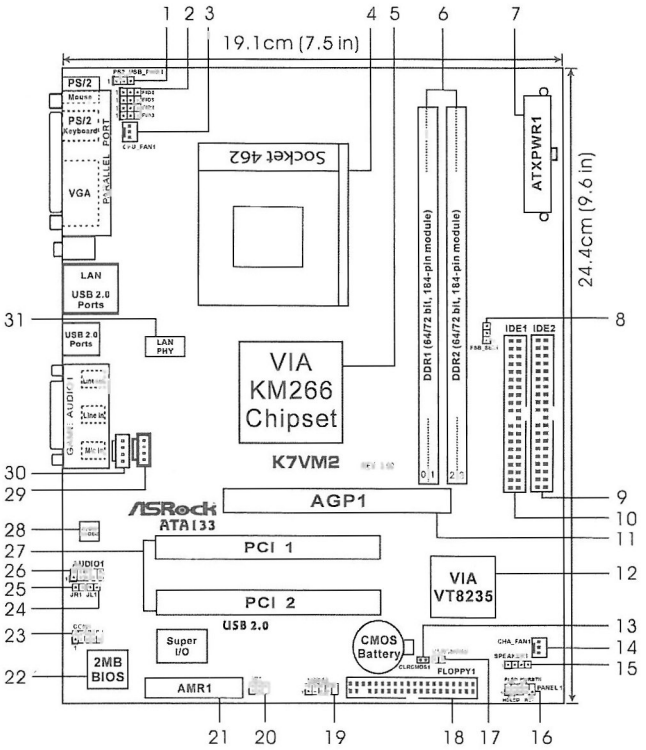
English

Motherboard Layout



1	PS2_USB_PWR1 jumper	2	FID Jumpers (FID0, FID1, FID2, FID3)
3	CPU fan connector (CPU_FAN1)	4	CPU socket
5	North Bridge controller	6	184-pin DDR DIMM slots (DDR 1- 2)
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9	Secondary IDE connector (IDE2, Black)	10	Primary IDE connector (IDE1, Blue)
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17	Clear CMOS (CLRCMOS2, 2-pin jumper)	18	Floppy connector (FLOPPY1)
19	USB 2.0 header (USB45, Blue)	20	Infrared module connector (IR1)
21	AMR slot (AMR1)	22	Flash Memory
23	Serial port connector (COM1)	24	JL1 jumper
25	JR1 jumper	26	Front panel audio connector (AUDIO1)
27	PCI slots (PCI 1- 2)	28	AUDIO CODEC
29	Internal audio connector: CD1 (Black)	30	Internal audio connector: AUX1 (White)
31	LAN PHY		

English

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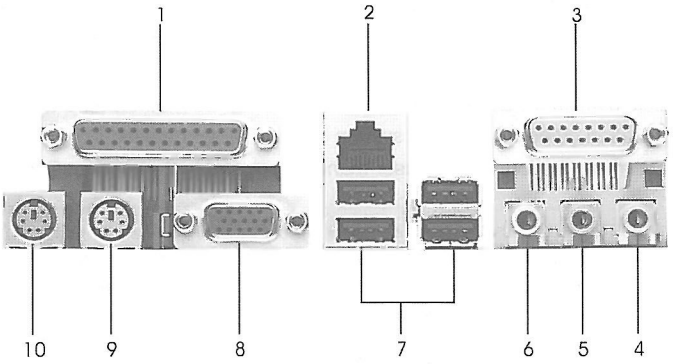


1	Parallel port	2	RJ-45 port
3	Game port	4	Microphone (Pink)
5	Line In (Light Blue)	6	Line Out (Lime)
7	USB 2.0 ports	8	VGA port
9	PS/2 keyboard port (Purple)	10	PS/2 mouse port (Green)

English

1. Introduction

Thank you for purchasing ASRock K7VM2 motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

This Quick Installation Guide contains introduction of the motherboard and step-by-step installation guide for new DIY system builders. More detailed information of the motherboard can be found in the user manual enclosed in the product CD-ROM.

Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRock website without further notice. You may find the latest memory and CPU support lists on ASRock website as well.
ASRock website http://www.asrock.com

Specifications

Platform: Micro ATX form factor (9.6" x 7.5", 24.4 x 19.1 cm)

CPU: Supports Socket A (462 pins) for
AMD Athlon™ / Athlon™ XP/ Duron™ processor

Chipsets: North Bridge: VIA KM266, FSB@200/266 MHz, AGP 4X
South Bridge: VIA VT8235, supports USB 2.0, ATA 133

Memory: 2 DDR DIMM slots: DDR1 and DDR2
PC1600 (DDR200) / PC2100 (DDR266), Max. 2GB

IDE: IDE1: ATA 133 / Ultra DMA Mode 6;
IDE2: ATA 133 / Ultra DMA Mode 6;
Can connect up to 4 IDE devices

Floppy Port: Supports 2 floppy disk drives

Audio: 2 channels AC'97 Audio

LAN: Speed: 802.3u (10/100 Ethernet), supports Wake-On-LAN

Hardware Monitor: CPU temperature sensing;
Chassis temperature sensing;
CPU overheat shutdown to protect CPU life
(ASRock U-COP)(see **CAUTION 1**);
Voltage monitoring: +12V, +5V, +3V, Vcore;
CPU fan tachometer; Chassis fan tachometer

PCI slots: 2 slots with PCI Specification 2.2

AGP slot: 1 universal AGP slot, supports 3.3V/1.5V, 4X/2X/1X AGP card

AMR slot: 1 slot, supports AMR modem card

English

USB 2.0:	4 default USB 2.0 ports and 1 extra set of header for two additional USB 2.0 ports upgrade (see **CAUTION 2**)
ASRock I/O™:	PS/2: 1 keyboard port / 1 mouse port; 1 RJ 45 port; 4 rear default USB 2.0 ports; 1 VGA port; 1 parallel port: ECP/EPP support; Audio Jack: Line Out / Line In / Microphone + Game port
BIOS:	AMI legal BIOS; Supports "Plug and Play"; ACPI 1.1 compliance wake up events; SMBIOS 2.3.1 support; CPU frequency stepless control (only for advanced users' reference, see **CAUTION 3**)
OS:	Microsoft® Windows® 98 SE / ME / 2000 / XP compliant

CAUTION!

1. While CPU overheat is detected, the system will automatically shutdown. Please check if the CPU fan on the motherboard functions properly before you resume the system. To improve heat dissipation, remember to spray thermal grease between the CPU and the heatsink when you install the PC system.
2. Power Management for USB 2.0 works fine under Microsoft® Windows® XP. It may not work properly under Microsoft® Windows® 98/ME/2000. Please refer to Microsoft® official document at http://www.microsoft.com/whdc/hwdev/bus/USB/USB2support.mspx
3. Although K7VM2 offers stepless control, it is not recommended to perform over clocking. When the CPU frequency of K7VM2 is set to perform over clocking, other clocks, such as PCI clock, AGP clock, and Memory clock will also be overclocked proportionally. Frequencies other than the recommended CPU bus frequencies may cause the instability of the system or damage the CPU.

2. Installation

Pre-installation Precautions

Take note of the following precautions before you install motherboard components or change any motherboard settings.

1. Unplug the power cord from the wall socket before touching any component. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.
2. To avoid damaging the motherboard components due to static electricity, NEVER place your motherboard directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that comes with the component.

2.1 CPU Installation

Step 1. Unlock the socket by lifting the lever up to a 90° angle.

Step 2. Position the CPU directly above the socket such that its marked corner matches the base of the socket lever.

Step 3. Carefully insert the CPU into the socket until it fits in place.

The CPU fits only in one correct orientation. DO NOT force the CPU into the socket to avoid bending of the pins.

Step 4. When the CPU is in place, press it firmly on the socket while you push down the socket lever to secure the CPU. The lever clicks on the side tab to indicate that it is locked.

Step 5. Install CPU fan and heatsink. For proper installation, please kindly refer to the instruction manuals of your CPU fan and heatsink vendors.

2.2 Installation of Memory Modules (DIMM)

K7VM2 motherboard provides two 184-pin DDR (Double Data Rate) DIMM slots.

Installing a DIMM

Step 1. Unlock a DIMM slot by pressing the retaining clips outward.

Step 2. Align a DIMM on the slot such that the notch on the DIMM matches the break on the slot.

Step 3. Firmly insert the DIMM into the slot until the retaining clip snap back in place and the DIMM is properly seated.

2.3 Expansion Slots (PCI, AMR, and AGP Slots)

There are 2 PCI slots, 1 AMR slot, and 1 AGP slot on K7VM2 motherboard.

PCI slots: PCI slots are used to install expansion cards that have the 32-bit PCI interface.

AMR slot: AMR slot is used to insert AMR modem card with v.92 Modem functionality.

AGP slot: The AGP slot is used to install a graphics card.
The ASRock AGP slot has a special locking mechanism which can securely fasten the graphics card inserted.

Installing an expansion card

Step 1. Before installing the expansion card, read the documentation of the expansion card and make necessary hardware settings for the card.

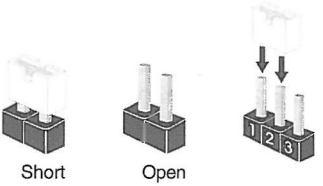
Step 2. Remove the bracket facing the slot that you intend to use. Keep the screws for later use.

Step 3. Align the card connector with the slot and press firmly until the card is completely seated on the slot.

Step 4. Fasten the card to the chassis with screws.

2.4 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is "SHORT". If no jumper cap is placed on the pins, the jumper is "OPEN". The illustration shows a 3-pin jumper whose pin1 and pin2 are "SHORT" when jumper cap is placed on these 2 pins.



Short Open

Jumper	Setting
FSB_SEL1 (see p.2 item 8)	2_3 FSB_SEL1 FSB 200MHz; 1_2 FSB_SEL1 FSB 266MHz

Note: The setting of the CPU front side bus frequency of this motherboard is by means of the adjustment of jumper-setting. Please follow the figures above to set the CPU front side bus frequency.

PS2_USB_PWR1 (see p.2 item 1)

Short pin2, pin3 to enable +5VSB (standby) for PS/2 or USB wake up events.

Note: To select +5VSB, it requires 2 Amp and higher standby current provided by power supply.

JR1 (see p.2 item 25)
JL1 (see p.2 item 24)

fig. 1

fig. 2

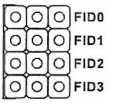
Note: When you connect speakers in back panel and front panel at the same time,

1. If the jumpers JL1 and JR1 are short (see fig. 1), both front panel and rear panel audio connectors can work.
2. If both jumper caps on JL1 and JR1 are removed (see fig. 2), only front panel audio works.

However, it requires your front panel to support the function.

English

FID Jumpers
(FID0, FID1, FID2, FID3)
(see p.2 item 2)



Note: The set of FID jumpers are designed to adjust the multiplier of CPU. For detailed information, please refer to page 13 of user Manual in the Support CD.

Clear CMOS

CLRCMOS1 (see p.2 item 13) solder points

CLRCMOS2 (see p.2 item 17) 2-pin jumper

Note: CLRCMOS1 and CLRCMOS2 allow you to clear the data in CMOS. The data in CMOS includes system setup information such as system password, date, time, and system setup parameters. There are 2 ways for you to clear and reset the system parameters to the default setup. Please turn off the computer and unplug the power cord, then you may either short the solder points on CLRCMOS1 by using metal material, e.g., a paper clip, for 3 seconds; or you may use a jumper cap to short the pin on CLRCMOS2 for 3 seconds. Please remember to remove the paper clip or the jumper cap after clearing the CMOS.

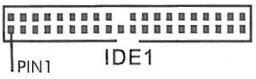
2.5 Connectors

Connectors are NOT jumpers. DO NOT place jumper caps over these connectors.

Connector	Figure	Description
FDD connector (33-pin FLOPPY1) (see p.2 item 18)		 red marking

Note: Match the red marking on the floppy ribbon cable with Pin1.

Primary IDE connector (Blue)
(39-pin IDE1, see p.2 item 10)



Secondary IDE connector (Black)
(39-pin IDE2, see p.2 item 9)

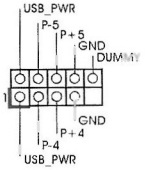
Connector this BLUE end to the motherboard

Connect this BLACK end to the IDE devices

80-Pin ATA 100/133 cable

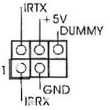
Note: To optimize compatibility and performance, please connect your hard disk drive to the primary IDE connector (IDE1, blue) and CD-ROM to the secondary IDE connector (IDE2, black).

USB 2.0 header
(9-pin USB45)
(see p.2 item 19)



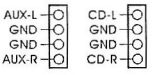
ASRock I/O™ already provided 4 default USB 2.0 ports. If the 4 USB 2.0 ports on the rear panel are not sufficient, this USB 2.0 header is available to support 2 additional USB 2.0 ports.

Infrared module connector
(5-pin IR1)
(see p.2 item 20)



This connector supports an optional wireless transmitting and receiving infrared module.

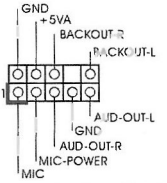
Internal audio connectors
(4-pin CD1, 4-pin AUX1)
(CD1: see p.2 item 29)
(AUX1: see p.2 item 30)



These connectors allow you to receive stereo audio input from sound sources such as a CD-ROM, DVD-ROM, TV tuner card, or MPEG card.

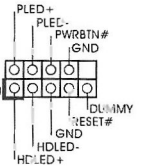
English

Front panel audio connector
(9-pin AUDIO1)
(see p.2 item 26)



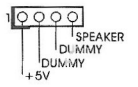
This is an interface for the front panel audio cable that allows convenient connection and control of audio devices.

System panel connector
(9-pin PANEL1)
(see p.2 item 16)



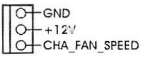
This connector accommodates several system front panel functions.

External speaker connector
(4-pin SPEAKER1)
(see p.2 item 15)



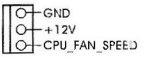
This connector allows you to attach to an external speaker.

Chassis fan connector
(3-pin CHA_FAN1)
(see p.2 item 14)



Connect the fan cable to the connector matching the black wire to the ground pin.

CPU fan connector
(3-pin CPU_FAN1)
(see p.2 item 3)

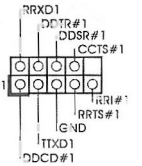


Connect the fan cable to the connector matching the black wire to the ground pin.

ATX power connector
(20-pin ATXPWR1)
(see p.2 item 7)

Connect an ATX power supply to the connector.

Serial port connector
(9-pin COM1)
(see p.2 item 23)



This COM1 header supports a serial port module.

English

3. BIOS Information

The Flash Memory on the motherboard stores BIOS Setup Utility. When you start up the computer, please press <F2> during the Power-On-Self-Test (POST) to enter BIOS Setup utility; otherwise, POST continues with its test routines. If you wish to enter BIOS Setup after POST, please restart the system by pressing <Ctl> + <Alt> + <Delete>, or pressing the reset button on the system chassis.

The BIOS Setup program is designed to be user-friendly. It is a menu-driven program, which allows you to scroll through its various sub-menus and to select among the predetermined choices. For the detailed information about BIOS Setup, please refer to the User Manual (PDF file) contained in the Support CD.

4. Software Support CD information

This motherboard supports various Microsoft® Windows® operating systems: 98 SE/ ME / 2000 / XP. The Support CD that came with the motherboard contains necessary drivers and useful utilities that will enhance motherboard features.

To begin using the Support CD, insert the CD into your CD-ROM drive. It will display the Main Menu automatically if "AUTORUN" is enabled in your computer. If the Main Menu does not appear automatically, locate and double-click on the file ASSETUP. EXE from the BIN folder in the Support CD to display the menus.

"PC-DIY Live Demo"

ASRock presents you a multimedia PC-DIY live demo, which shows you how to install your own PC system step by step. To see this demo program, you can run Microsoft® Media Player® to play the file. You can find the file in the Support CD through the following path:

..\ MPEGAV \ AVSEQ01.DAT

English

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